

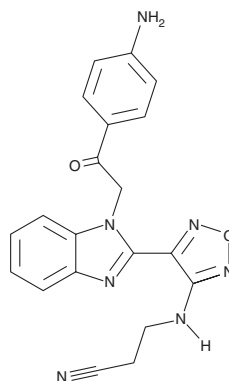
PRODUCT INFORMATION



Avanbulin

Item No. 45297

CAS Registry No.: 798577-91-0
Formal Name: 3-[[4-[1-[2-(4-aminophenyl)-2-oxoethyl]-1H-benzimidazol-2-yl]-1,2,5-oxadiazol-3-yl]amino]propanenitrile
MF: C₂₀H₁₇N₇O₂
FW: 387.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Avanbulin is supplied as a solid. A stock solution may be made by dissolving the avanbulin in the solvent of choice, which should be purged with an inert gas. Avanbulin is soluble (≥10 mg/ml) in DMSO.

Description

Avanbulin is an inhibitor of microtubule polymerization and is the active metabolite of the lysine-containing prodrug lisavanbulin.¹ Avanbulin binds to unassembled tubulin at the binding site for colchicine (Item No. 9000760) and inhibits tubulin assembly (IC₅₀ = 1.4 μM). It is cytotoxic to GBM6 and GBM9 glioblastoma cells (EC₅₀s = 20.8 and 21.7 nM, respectively). Avanbulin (6 nM) reduces migration and capillary-like structure formation in GBM6 cells in a manner dependent on end-binding protein 1 (EB1).^{2,3}

References

1. Prota, A.E., Danel, F., Bachmann, F., *et al.* The novel microtubule-destabilizing drug BAL27862 binds to the colchicine site of tubulin with distinct effects on microtubule organization. *J. Mol. Biol.* **426(8)**, 1848-1860 (2014).
2. Bergès, R., Tchoghandjian, A., Honoré, S., *et al.* The novel tubulin-binding checkpoint activator BAL101553 inhibits EB1-dependent migration and invasion and promotes differentiation of glioblastoma stem-like cells. *Mol. Cancer Ther.* **15(11)**, 2740-2749 (2016).
3. Bergès, R., Tchoghandjian, A., Sergé, A., *et al.* EB1-dependent long survival of glioblastoma-grafted mice with the oral tubulin-binder BAL101553 is associated with inhibition of tumor angiogenesis. *Oncotarget* **11(8)**, 759-774 (2020).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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